

LATITUDINAL AND RADIAL VARIATION OF >2 GeV/n PROTONS AND ALPHA PARTICLES IN THE SOUTHERN HELIOSPHERE AT SOLAR MAXIMUM: ULYSSES COSPINKET AND NEUTRON MONITOR NETWORK OBSERVATIONS.

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Ulysses, launched in October 1990, began in its second out-of-ecliptic orbit in September 1997 and its second fast latitude scan in November~2000. In contrast to the first orbit with the Sun declining to low activity, we are now at solar maximum conditions. The Kiel Electron Telescope (KET) on-board Ulysses measures proton and alpha-particles in the energy range from 5 MeV/n to >2 GeV/n. To derive radial and latitudinal gradients, data from the Chicago instrument on board IMP-8 and the neutron monitor network have been used. To determine the time profile of >2 ~GeV/n proton and alpha-particles at Earth further data reduction, as described in our previous work, is necessary. The latitudinal gradient obtained during the time period from 1997 to 2001 revealed a big difference between those found during Ulysses' first latitude scan in 1994 and 1995 during solar minimum activity